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TO: George Lew, Chief
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FROM: Joe Guerrero, Manager
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DATE: July 11, 2006

SUBJECT: 200 AND 100-CAR MATRIX UPDATE

A 200-car matrix and a 100-car matrix were prepared to be representative of the model year and make of in-use vehicles in California in 2006. These matrices were prepared for use in the certification of vapor recovery systems in accordance with California Air Resources Board (ARB) Test Procedure 201.2A, Determination of Vehicle Matrix for Phase II Systems. The matrices were determined from the following two data sets:

- (1) The report of the number of registered vehicles by model year and make as of the end of 2005 from the California Department of Motor Vehicles (DMV). Tuan Quan of the Information Systems Branch provided a printed copy of the report. (Contact information: TQuan@DMV.CA.gov, (916) 657-8413).
- (2) The projected vehicle populations and miles per day traveled by model year for passenger cars and light and medium duty trucks from the ARB's Emission Factors (EMFAC2002) Model, Version 2.20. Tom Scheffelin of ARB's Planning and Technical Support Division (PTSD) provided the EMFAC data. (Contact information: tscheffe@arb.ca.gov, (916) 327-7847).

The updated 200-vehicle matrix is as follows:

200 Vehicle Matrix									
Model Years	Chrysler	Ford	G.M.	Toyota	Honda	Niss/Dat	VW/Volvo	Others	Totals
2003-2006	3	6	8	8	5	3	3	6	42
2000-2002	3	8	8	6	4	3	2	6	40
1996-1999	4	9	8	6	4	2	2	5	40
1990-1995	2	8	8	5	4	1	3	5	36
1959-1989	3	8	12	5	3	3	3	5	42
Totals	15	39	44	30	20	12	13	27	200

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

A 100 vehicle matrix was also prepared:

100-Vehicle Matrix									
Model Years	Chrysler	Ford	G.M.	Toyota	Honda	Niss/Dat	VW/Volvo	Others	Totals
2003-2006	2	3	4	4	2	1	2	3	21
2000-2002	2	4	4	3	2	1	1	3	20
1996-1999	2	4	4	3	2	1	1	3	20
1990-1995	1	4	4	3	2	1	1	3	19
1959-1989	2	4	6	2	1	1	1	3	20
Totals	9	19	22	15	9	5	6	15	100

This update of the vehicle test matrices includes the following gasoline-fueled vehicle categories, as defined for EMFAC 2.20:

- Passenger cars
- Light-duty trucks (LDT1) (0 - 3750 wt class)
- Light-duty trucks (LDT2) (3751-5750 wt class)
- Medium-duty trucks (MDV) (5751-8500 wt class)

It is estimated that 61 percent of California's in-use vehicle population is passenger cars, 32 percent is light duty trucks, and 7 percent is medium duty trucks.

This year's matrices do not include a separate truck category for each model year grouping. A separate truck category is not necessary, as it was determined that the DMV count of vehicles by make and model year includes all registered vehicles, not just passenger cars. To fit a candidate truck into one of these matrices, a tester need only determine a gasoline-fueled vehicle's make and model year and that the vehicle weight is 8500 lbs or less. (The vehicle weight is posted on the vehicle information plate, located on the driver's door frame.)

If you have questions or need further information, please contact Frances Cameron at (916) 445-9314 or via email at fcameron@arb.ca.gov.

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